

ABSTRACT

A method for manufacturing a thin-film semiconductor includes the step of polycrystallization to focus visible light pulse laser (22) into a line shape on a surface of an object to be irradiated, and repeat irradiation with displacing the visible light pulse laser (22) such that a line-shaped irradiated region (35) is overlapped with a region (35) irradiated at a next timing in a width direction of the line-shaped irradiated region, to form a polycrystalline silicon film on the surface of the object. The step of polycrystallization applies ultraviolet light pulse laser (23) onto a second irradiated region (36) partially overlapping the first irradiated region (35) while or before the visible light pulse laser (22) is applied to the first irradiated region (35).